DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: May 17, 2018	**WEATHER:** Overcast, High ~65 degrees F, scattered sun in the late afternoon

Personnel and Visitors Onsite:
Research vessel Cayuse – CDM Smith: Libby Miner; AECOM: Mark Tauscher; Geosyntec: Erin Dunbar; Gravity Marine: Mike Duffield, Ed Sloan

Research vessel Tieton – CDM Smith: Emma Ehret; AECOM: Bruce Cassen; Geosyntec: Allison Clements; Gravity Marine: Rene Trudeau, Maggie McKeon

Planned Activity:

- Attend morning meeting at AECOM sample processing facility to discuss health and safety, lessons learned during sediment sampling, and refined approach for determining acceptable sediment samples under a variety of substrate conditions.
- Cayuse: Collect surface sediment samples at stratified random sample locations and SMA locations near RM-7.5
- Tieton: Collect surface sediment samples at SMA locations near RM-7.

Activity Completed:
At 0800 hours, AECOM (Mark) led a safety meeting. He noted the sheen discovered yesterday, May 16, and warned everyone to be watchful. He explained that extra bins are available for storage of entire grabs in which NAPL is discovered. Mark and Erin reminded the group of the use of methanol and nitric acid for decontamination of materials that may come in contact with NAPL. Erin emphasized not to discard nitric acid wash overboard and noted the contact numbers that are available in the event that NAPL is encountered. Bruce asked about eyewash locations and these were identified.

Emma Ehret performed oversight of surface sediment sampling at SMA locations aboard the Tieton. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at 0900 and 1745 at the PH-2 control point at the Fred Devine property. GPS coordinates were within 0.82 (morning, Tieton) and 0.71 (evening, Tieton) meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from SMA locations near RM 7 W. Samples collected and a brief description of each sample are provided below. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water. No sheen or NAPL was observed.

Libby Miner performed oversight of surface sediment sampling from 08:50 to 17:00 on board the Tieton. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at the beginning and end of the day at the PH-2 control point at the Fred Devine property. GPS coordinates were within 1.33 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from three stratified random locations and two SMA locations. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water.

Status of Schedule & Priority Work:

- Sampling will continue tomorrow with SMA, stratified random, and co-located core sampling locations.
- Sampling on private property locations will continue at locations with property access agreements.
- Sample locations in areas of known/anticipated heavy sheen contamination will start to be sampled soon as the other remaining locations are completed. The area in which this contamination is expected to be encountered is RM 5.5 to 6.8 on the west side, the US Moorings, Gasco, Siltronic, and Arkema properties.
- Sampling is taking more time than initially projected.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):

Aboard the Tieton a total of 7 grabs attempts were performed at location SG-S136. A recovery depth of 14 cm was obtained for each grab, despite the lowering of the grab in its frame and the addition of all available weight. The hydraulic pressure of the grab was eventually increased so that a recovery depth >20 cm was possible. Allison called Erin, and the decision was made to continue grab attempts for the location because one at >20 cm had been obtained. Ultimately, 2 more attempts yielded recovery depths >20 cm so the 3 grabs were composited.

At location SG-S137, overpenetration occurred twice (attempts 1 and 2). Because the previous locations had required all of the weight, this issue was rectified by removing some of the weight. After this adjustment 3 successful grabs of soft sediment were collected.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
On the Cayuse, sediment samples were collected at the following stratified random sampling and SMA locations:

- PDI-SG-B209– within 50 ft radius, medium dense sand with silt lenses
- PDI-SG-B225 – within 50 ft radius, silt with trace fine sand
- PDI-SG-S151 – within 25 ft radius, dark grey soft silt
- PDI-SG-S153 – within 25 ft radius, dark grey soft silt

On the Tieton, sediment samples were collected at the following SMA locations:

- PDI-SG-S136 – within 50 ft radius, dark brown soft silt with trace fine grained sand, occasional worms and other organic matter
- PDI-SG-S137 – within 25 ft radius, dark brown very soft silt
- PDI-SG-S138 – within 50 ft radius, medium stiffness silt with slight plasticity, trace fine grained sand
- PDI-SG-S139 – within 25 ft radius, very dark brown very soft silt
- PDI-SG-S141 – within 25 ft radius, very soft silt, trace organics (e.g., twigs), and one grab retrieved a plastic bag
- PDI-SG-S146 – within 25 ft radius, very dark brown soft silt
- PDI-SG-S148 – within 25 ft radius, very dark brown soft silt

Photographs of work were taken throughout the day on board the Cayuse and Tieton were provided to EPA via email. These are archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None.

Wastes Generated and How Handled:

- Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.
- NAPL was not encountered, so nitric acid disposal was not necessary.

Health and Safety Issues, Equipment Needs, Staffing:
None.

Signature: Emma Ehret, Libby Miner **DATE** May 17, 2018